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AMSAT NEWS SERVICE
ANS-204

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The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to: ans-editor [at] amsat.org

You can sign up for free e-mail delivery of the AMSAT News Service Bulletins via the ANS List; to join this list see: https://mailman.amsat.org/postorius/lists/ans.amsat.org/

ANS-204 AMSAT News Service Weekly Bulletins

To: All RADIO AMATEURS
From: Radio Amateur Satellite Corporation
712 H Street NE, Suite 1653
Washington, DC 20002

DATE 2023 July 23

AMSAT 41st Annual Symposium & Annual Meeting Rooms Now Available

Planning on attending the AMSAT 41st Annual Symposium and General Meeting in Dallas/Ft. Worth on October 20-21? Of course you are! Rooms at the discounted group rate are now available. We suggest you make your reservations right away because only a limited number of rooms are available. The hotel and room rate information is as follows:

Sheraton DFW Airport Hotel
4440 W John Carpenter Fwy.
Irving, TX 75063
972-929-8400

Rooms are available for check-in on Wednesday, October 18 and check out Sunday, October 22.

Standard room with single King bed is $137.00*
Standard room with two Queen beds is $137.00*
* Rate does not include state and local taxes of 15%

For Phone Reservations:
972-929-8400
Ask for rate RADIO AMATEUR SATELLITE.

For Online Reservations:
https://www.marriott.com/event-reservations/reservation-link.mi?id=1689956666782&key=GRP&app=resvlink
(Make sure you enter the dates you want before clicking on the "Check
Availability" button.

The hotel is conveniently located at the DFW International Airport for
those flying to the event. The hotel offers free parking for those driving.

If you have questions or comments, please send your email to info [at]
amsat [dot] org.

[ANS thanks AMSAT for the above information]

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URESAT-1 Update

This is an update about our satellite URESAT-1, launched with SpaceX on June 12th (Transporter-8 mission from Vanderberg) and using Alba Orbital as our space broker. First of all, URESAT-1 is a small pocketQube 1.5P (8x5x5 cm), much smaller than a Cubesat.

The satellite was expelled from the D-Orbit Orbital Transfer Vehicle (OTV) ION ten days after the launch, on June 22th at 12.10 UTC, along with MRC-100 and ROM-2 satellites. Soon after, using the OTV TLE available for pointing, signals from MRC-100 and ROM-2 were received but not ours... This made us think we again had a problem with the deployment of the antennas.

Fortunately Daniel EA4GPZ could receive the URESAT-1 on June 26th using the ATA radio telescope at 22.03 UTC. The pattern of the transmissions matched and, using the IQs from the two antennas used, with two polarities, we could decodify telemetry, showing that the satellite was performing well with no resets or events. The battery was almost fully charged but the antennas were not deployed, as it was shown in the status packet received. We worked hard to improve the deployment system from our previous satellites but something hasn't gone well again. Satellite seems to be cold even in sunlight but we performed tests using temperatures as low as 20 C below zero so this should not be a problem...

Doing a lot of analysis (after the ATA observation we found that our satellite was 20-30 seconds ahead of MRC-100) and with a lot of help from the Satnogs thread regarding that launch, we managed to conclude that our satellite should be NORAD object 56992.

The team at Dwingeloo radio telescope on Netherlands has confirmed this with several observations these days

https://network.satnogs.org/observations/7877553/
https://network.satnogs.org/observations/7881183/
https://network.satnogs.org/observations/7883687/

Using the IQs of these recordings (available here https://data.camras.nl/satnogs/) we have been able to decode new telemetry, CW and even a SSTV image from the satellite image bank. After more than three weeks in orbit the satellite is performing well and we hope that the antennas will deploy at some moment.

The plan now is sending the satellite commands to try to deploy the antennas, although we are going to need a lot of power because the received signal without a proper antenna will be low. If you have a powerful station for transmitting on VHF and want to help us, please let me know.

We want to thank Daniel EA4GPZ, the ATA radio telescope, PE0SAT, the Dwingeloo staff, especially Tammo Jan, and Satnogs staff for their kind help in identifying the URESAT and the reception of their signals. It has provided very valuable data on the status of the satellite.

Decoded telemetry, CW and the SSTV image is available in our web (sorry, it is in spanish) and also in the Satnogs thread about the Transporter-8 mission:

https://www.amsat-ea.org/
https://community.libre.space/t/spacex-f9-transporter-8-2023-06-12-21-35-utc/10499

[ANS thanks Félix Páez, EA4GQS, AMSAT-EA President for the above information]

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Want to fly the colors on your own grid expedition?
Get your AMSAT car flag and other neat stuff
from our Zazzle store!
25% of the purchase price of each product goes
towards Keeping Amateur Radio in Space
https://www.zazzle.com/amsat_gear

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I have been seeing a lot of traffic on Facebook and I suspect on other social media sites with people asking why they are not hearing the crew make general contacts. First off the crew is very busy on the ISS and they simply may not have the time to just pick up the microphone and talk. Also, one needs to be aware of their normal daily schedule. I have listed below the constraints that we at ARISS have to follow in order to schedule the school contacts. Hopefully this will help you better schedule your opportunities.

Typical daily schedule

Wakeup to Workday start= 1.5 hours
Workday start to Workday end=12 hours
Workday end to Sleep= 2 hours
Sleep to wakeup= 8.5 hours

The crew's usual waking period is 0730 - 1930 UTC. The most common times to find a crew member making casual periods are about one hour after waking and before sleeping, when they have personal time. They're usually free most of the weekend, as well.

SSTV events are not that often. So please check out https://www.ariss.org/ for the latest information or watch for the ARISS announcements.

And don’t forget that the packet system is active.

As always, if there is an EVA, a docking, or an undocking; the ARISS radios are turned off as part of the safety protocol.

ARISS Radio Status

Columbus Module radios:
IORS (Kenwood D710GA) – STATUS - Configured. Default mode is for cross band repeater (145.990 MHz up {PL 67} & 437.800 MHz down).
* SPECIAL SSTV experiment July 26, 2023. Transmissions are scheduled to begin at 20:05 UTC (16:05 ET) and ending at 20:20 UTC (16:20 ET). If necessary, a backup window will be 21:40 UTC (17:40 ET) to 21:55 UTC (17:55 ET). Requesting a clear uplink during this time frame.
* Powering off for Russian EVA on Aug. 09.
* Capable of supporting USOS scheduled voice contacts, packet and voice repeater ops.

Service Module radios:
IORS (Kenwood D710GA) – STATUS - Configured. Default mode is fo packet operations (145.825 MHz up & down)
* Powering off for Russian EVA on Aug. 09. OFF TBD . ON TBD.
* Capable of supporting ROS scheduled voice contacts, packet, SSTV and voice repeater ops.

The latest information on the operation mode can be found at https://www.ariss.org/current-status-of-iss-stations.html

The latest list of frequencies in use can be found at https://www.ariss.org/contact-the-iss.html

[ANS thanks Charlie Sufana, AJ9N, one of the ARISS operation team mentors for the above information]

Upcoming Satellite Operations

>From David, N9KT:

I'll be at the Philmont Scout Ranch activating DM76 on all the satellites from July 19-28 using voice and digital. I'll be doing demonstrations and training for Radio Merit Badge and hope to be very active on the birds every day. (Ed: David doesn't appear to be active on Twitter. I've suggested hams.at as an outlet for more detailed info as the date(s) draw closer.)
I'll also be trying to activate some grids on the trip out (July 17-18) and back (July 29-30) between Indianapolis and the Philmont Scout Ranch.

BI1NJI will be QRV as BI1NJI/3 from ON83 24th through 27th July. FM and IO-117. This is all I know at the moment. He does do Twitter (@YankaiP) and has said that details will follow.

[ANS thanks Ian Parsons, K5ZM, AMSAT rover page manager, for the above information]

Hamfests, Conventions, Maker Faires, and Other Events

AMSAT Ambassadors provide presentations, demonstrate communicating through amateur satellites, and host information tables at club meetings, hamfests, conventions, maker faires, and other events.

+ Small Satellite Conference
August 5-10, 2023
Utah State University, Logan, UT
More information at: https://smallsat.org/

+Northeast HamXposition and ARRL New England Division Convention
August 25-27, 2023
Best Western Royal Plaza Hotel
Marlboro, MA
https://hamxposition.org/

+ 41st AMSAT Space Symposium & Annual General Meeting
October 20-21, 2023
Sheraton DFW Airport Hotel
4440 W John Carpenter Fwy, Irving, TX 75063

AMSAT Ambassadors provide presentations, demonstrate communicating through amateur satellites, and host information tables at club meetings, hamfests, conventions, maker faires, and other events.

AMSAT Ambassador Clint Bradford, K6LCS, says,

"Think a 75-minute presentation on "working the easy satellites" would be appropriate for your club or event? Let me know by emailing me at k6lcsclint (at) gmail (dot) com or calling me at 909-999-SATS (7287)!"

Clint has NEVER given the exact same show twice: EACH of the 150+ presentations so far has been customized/tailored to their audiences.

[ANS thanks Clint Bradford, K6LCS, and AMSAT for the above information]

Satellite Shorts From All Over

+ From Bruce Paige, KK5DO, (kk5do at arrl.net) "July 25 at 11:59pm is the deadline to get your summary sheets to be scored for this years AMSAT Field Day. I have received very few scores and even fewer pictures this year. Even if you have already submitted your entry, drop me a picture or two with a description."

+ Philippine cubesats May-5 and Maya-6 have been deployed. The satellites were launched to the International Space Station on June 5 aboard the Japanese Experiment Module (JEM) Small Satellite Orbital Deployer-26, and were released from the ISS on July 19. The primary mission of Maya-5 and Maya-6 CubeSats is to provide digital message relay service to the amateur radio community by means of an APRS (Automatic Packet Reporting System) digipeater onboard. The APRS digipeater onboard the CubeSats will use 145.825 MHz for both receive and transmit. Another mission of the cubesats is to demonstrate a data/message store-and-forward (S&F) system in line with the Universal Amateur Radio Text and E-mail messaging. The CubeSats will also carry Commercial off-the-shelf (COTS) cameras which will take images of the participating countries from space for promotional and educational awareness. A downlink on 437.375 MHz and APRS activities on 145.825 MHz have been coordinated. (ANS thanks The Philippine Daily Inquirer and IARU for the above information)

+ The Order of Malta's Italian Relief Corps (CISOM) Amateur Radio Station - 1A0C will be activated from July 26th to August 2nd at the Magistral Villa on the Aventine (Rome). The Sovereign Military Order of Malta is a separate DXCC entity. Satellite operations are expected on LEO satellites and QO-100. Details to follow (ANS thanks the 1A0C team for the above information)

+ The Sun's activity is defying forecasts and highlighting how difficult it is to predict the machinations of Earth's nearest star. Space weather can shorten the lifespans of satellites, cause radio blackouts and, in extreme solar storms, bring down power grids. Predictions from 2020 suggested the Sun would reach the peak of its 11-year solar cycle in 2025, and its intensity would be on par with the last cycle. But current observations show its activity could now peak as early as 2024. The current cycle is also on track to be more extreme, with more solar flares, sunspots and activity than the previous one, though not as big as others on record. The National Oceanic and Atmospheric Administration is planning to fly two new instruments to space that should help them keep an eye on the Sun in the coming years. A Sun-focused instrument is slated to launch on the GOES-U weather satellite next year, and another instrument will fly in 2025. (ANS thanks Axios Space for the above information)

+ Congratulations to Joel Weiner, VE6WQ, the 60th recipient of the AMSAT GridMaster Award.
The AMSAT GridMaster is awarded to those operators who confirm QSOs with all 488 maidenhead grid squares located within the continental United States. https://www.amsat.org/gridmaster/ (ANS thanks Bruce Paige, KK5DO, AMSAT Director of Contests and Awards for the above information)

Join AMSAT today at https://launch.amsat.org/

In addition to regular membership, AMSAT offers membership to:

* Societies (a recognized group, clubs or organization).
* Primary and secondary school students are eligible for membership at one-half the standard yearly rate.
* Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status.
* Memberships are available for annual and lifetime terms.

Contact info [at] amsat.org for additional membership information.

73 and remember to help Keep Amateur Radio in Space!

This week's ANS Editor,

Paul Stoetzer, N8HM
n8hm [at] amsat.org